

Gulf of Mexico Harmful Algal Bloom Bulletin

Region: AL/MS/FL

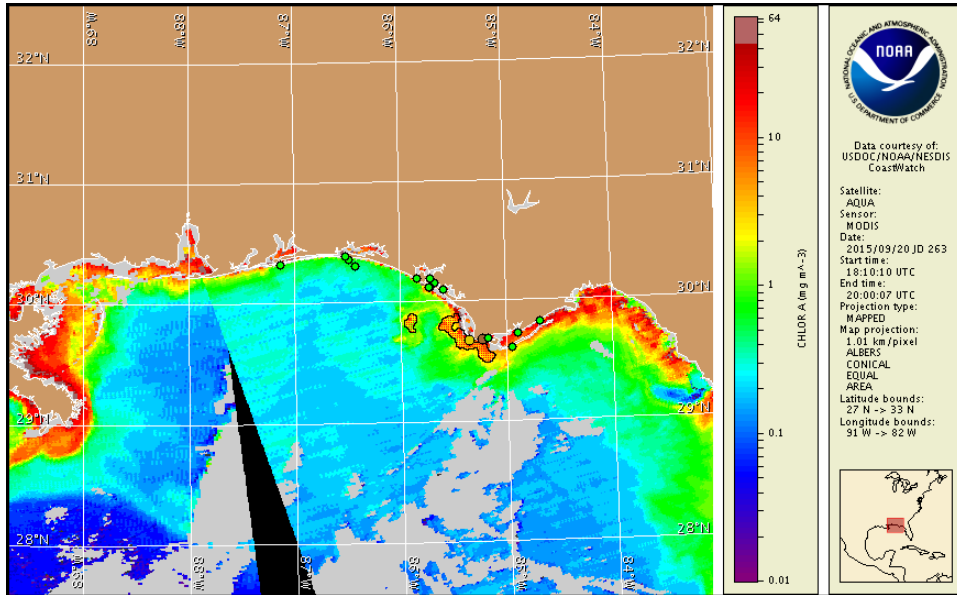
Monday, 21 September 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Friday, September 18, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from September 11 to 18: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information for Florida can be obtained through FWC Fish and Wildlife Research Institute at:

<http://myfwc.com/redtidestatus>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: <http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

Not present to low concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of northwest Florida from Escambia to Taylor counties. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for along-shore northwest Florida Monday, September 21 to Thursday, September 24 is listed below:

County Region: Forecast (Duration)

Gulf County: Moderate (M), Low (Tu), Very Low (W-Th)

Gulf County, east bay regions-Indian Lagoon area: Low (M-Th)

All Other NWFL County Regions: None expected (M-Th)

SWFL County Regions: Visit <http://tidesandcurrents.noaa.gov/hab/#swfl>

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at http://tidesandcurrents.noaa.gov/hab/hab_health_info.html. No reports of respiratory irritation or fish kills have been reported over the past several days.

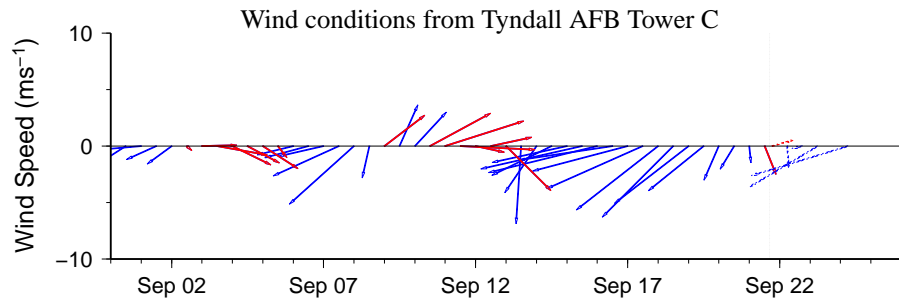
Analysis

Recent samples collected last week from along- and offshore northwest Florida (Escambia to Taylor counties) indicated not present to 'low b' concentrations of *Karenia brevis*. New sampling in Bay and Okaloosa counties indicated *K. brevis* concentrations were not present in St. Andrews Bay and Choctawhatchee Bay (FWRI; 9/15-16). No reports of respiratory irritation or dead fish were received from alongshore northwest Florida over the weekend (FWRI, MML; 9/18-9/21).

In recent ensemble imagery from 9/20 (MODIS Aqua, shown left), patches of elevated to high chlorophyll (2 to 12 $\mu\text{g/L}$) with the optical characteristics of *K. brevis* are visible alongshore, and up to 30 miles offshore, northwest Florida in Bay, Gulf, and Franklin counties where recent sampling indicated up to 'low b' concentrations of *K. brevis*. Further sampling of this region is recommended. Recent MODIS Aqua imagery did not indicate the presence of chlorophyll anomalies with the optical characteristics of *K. brevis* from Escambia to Walton counties.

Northeast winds Tuesday through Thursday may promote westward transport of *K. brevis* concentrations and may minimize potential for intensification at the coast.

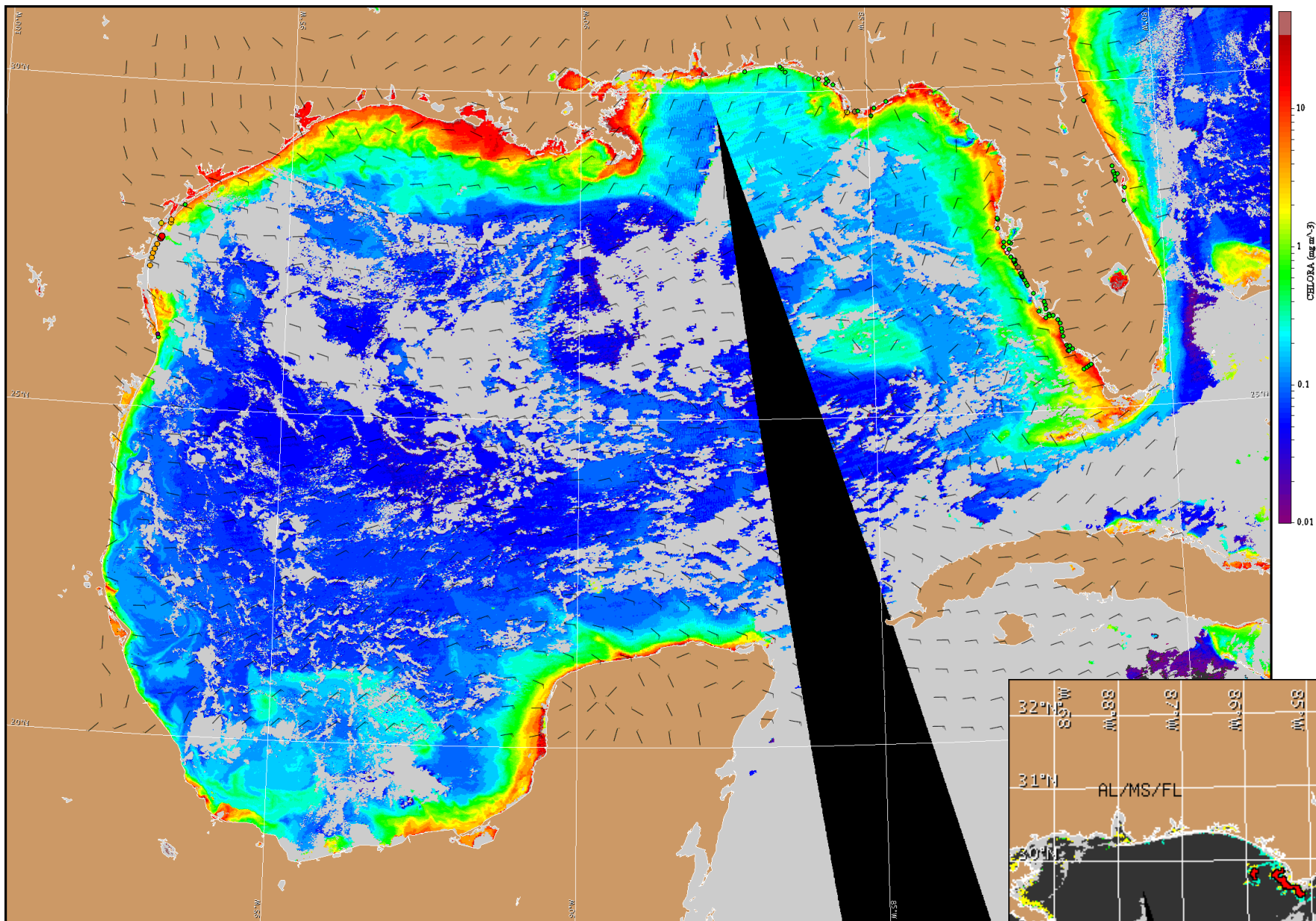
Davis, Yang



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

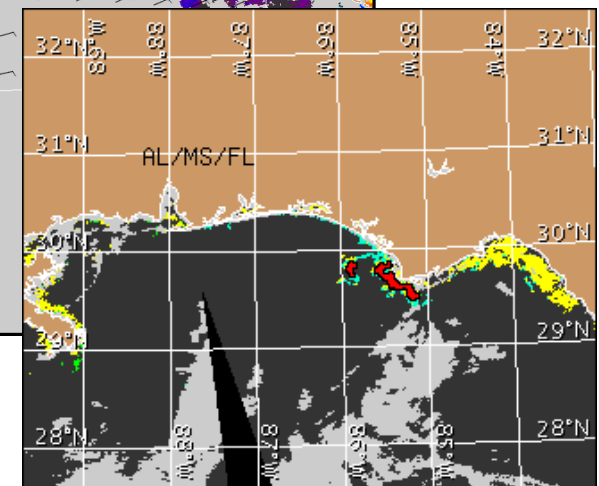
Wind Analysis

Escambia to Taylor counties: Northwest winds (10kn, 5m/s) today becoming northeast winds (10kn) tonight. East winds (10kn) Tuesday becoming northeast winds (10-20kn, 5-10m/s) Tuesday evening through Thursday.



Satellite chlorophyll image and forecast winds for September 22, 2015 06Z with points representing cell concentration sampling data from September 11 to 18: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf



Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).